Modernization Partner

United States Department of Education
Student Financial Assistance

Internet Security Standards
Executive Summary

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Department of Education

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Introduction

SFA needs a security architecture that incorporates security best practices to ensure customer and business partner confidence in the security of SFA data and to support the requirements of SFA business initiatives. The primary security concerns should focus on preserving the privacy and authenticity of information. The Internet Security Standards document lays the foundation for building the security strategy and competencies within SFA needed to support the business initiatives.

The Internet Security Standards document identifies the major SFA security requirements that supports the business initiatives, links the security requirements to security architecture services, identifies gaps in the current security architecture that needs to be bridged in order to support the SFA business initiatives, and presents projects designed to satisfy the SFA security requirements

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Security Challenges

■ The Internet Security Standards document identified major SFA Internet business initiatives and the security challenges that need to be met in order to effectively realize the benefits of doing business on the Internet. These challenges are not unique to SFA, but are consistent with the challenges faced by commercial organizations.

■ Recent surveys highlight security concerns similar to those expressed by SFA.
- 70% of 51 fortune 1000 companies ranked security among their top 3 Internet issues
- 99% of Andersen Consulting eBusiness projects ranked security as extremely or very important
- Andersen Consulting eBusiness project teams ranked their most important security concerns as follows:
    - Disclosure of confidential information = 35%
    - Fraudulent transactions = 20%
    - Negative publicity = 14%
    - Other (service disruption, financial loss, corrupted data, etc.) = 31%

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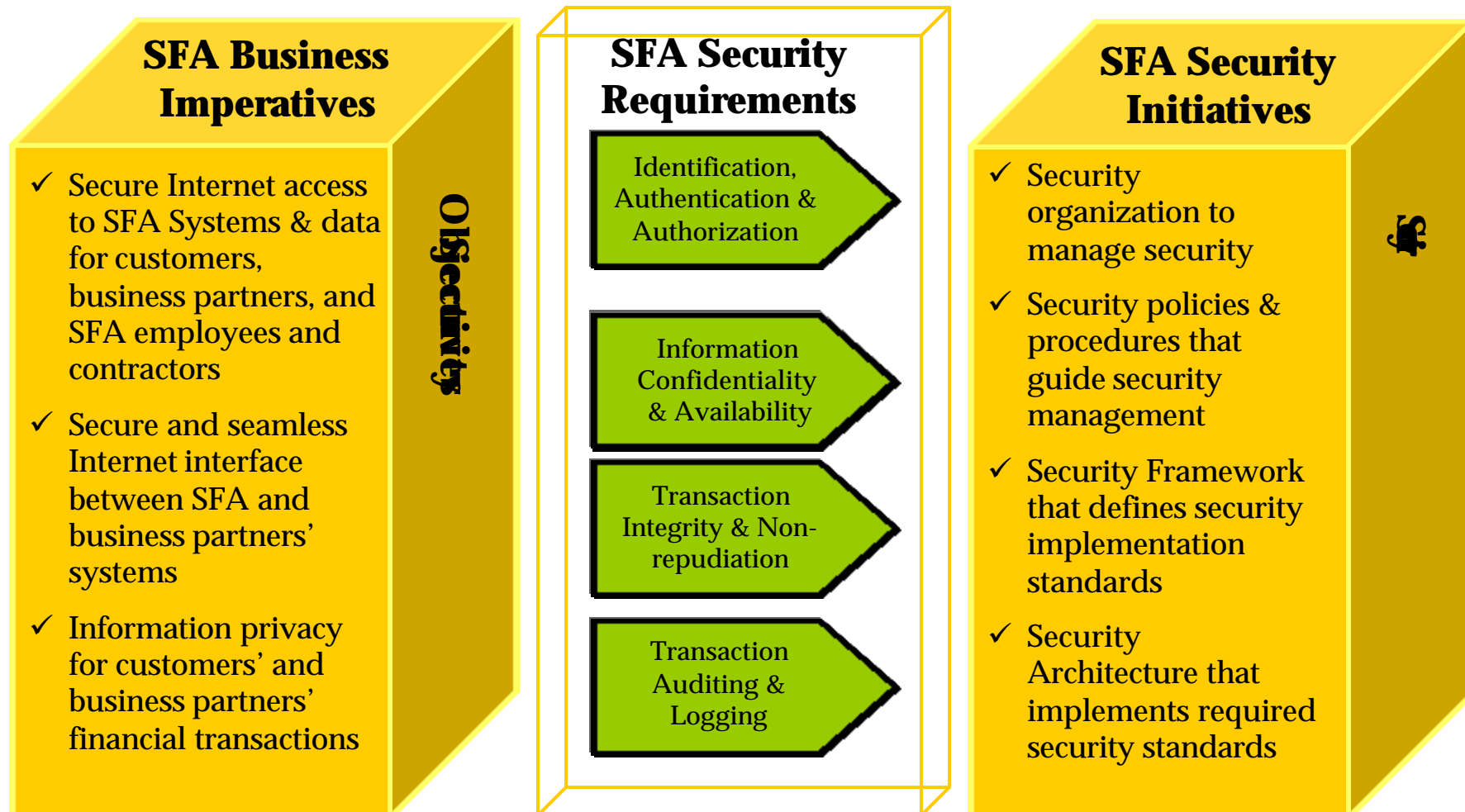
SFA Security Requirements

- **Information privacy is one of the major drivers for the security protection needed for student, borrower, and business partner data**

- The Internet Security Standards document focuses on enabling the success of SFA business initiatives by:
  - Identifying major SFA business imperatives
  - Mapping the business imperatives to security requirements
  - Identifying security components that satisfy the security requirements

- Several matrices have been created to evaluate these concerns:
  - Security services required by SFA business processes
  - Required security services and specific security solutions
  - Information protection requirements as driven by security protection for data stored in SFA systems

The SFA business imperatives drive security requirements that determine the SFA security initiatives

SFA Business Imperatives

Objectives

✓ Secure Internet access to SFA Systems & data for customers, business partners, and SFA employees and contractors

✓ Secure and seamless Internet interface between SFA and business partners' systems

✓ Information privacy for customers' and business partners' financial transactions

SFA Security Requirements

- Identification, Authentication & Authorization
- Information Confidentiality & Availability
- Transaction Integrity & Non-repudiation
- Transaction Auditing & Logging

SFA Security Initiatives

✓ Security organization to manage security

✓ Security policies & procedures that guide security management

✓ Security Framework that defines security implementation standards

✓ Security Architecture that implements required security standards

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Guiding Principles:

■ Policy statements will be used to guide the security initiatives, and ensure linkage with the business initiatives. Several guiding principles are addressed in the Internet Security Standards document, most notably, those which deal with:

- *Information Confidentiality*
- *Accountability*
- *Awareness*
- *Proportionality*
- *Multi-disciplinary Integration*

Security Projects:

■ Several projects were defined as the next steps which SFA should take, in order to ensure that all information security issues are addressed throughout all of SFA business and IT processes. Those projects include the project description, the objectives of the projects, and the associated final deliverables:

- Security Organization Design
- Security Policies & Procedures
- Enterprise Security Architecture
- Security Communication Plan